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FRONT COVER

Italian Farmer

"ERP in Italy" is more than the title of a report to this Italian farmer for he is familiar with the reconstruction that has taken place throughout his own countryside. (Photo courtesy of ECA.)

BACK COVER

Land Use in Italy

Although Italy's land is farmed intensively, there are many unproductive acres that should be producing food for the rapidly growing population. This is the aim of ERP's long-term programs of land reclamation and improvement.

NEWS NOTES

Pendleton Awarded Geographical Medal

Dr. Robert L. Pendleton, agronomist of the Office of Foreign Agricultural Relations and professor of tropical soils and agriculture at Johns Hopkins University, has been awarded the American Geographical Society's David Livingstone Centenary Medal in recognition of his outstanding work "as one of the world's

leading experts in soil survey and classification and, particularly, on the nature and use of tropical soils." Dr. Pendleton is at present stationed in Thailand where, under the United States program of technical cooperation, he is assisting that country's rice-improvement and agricultural research work. Others receiving the Society's gold medals were Dr. H. W. Ahlmann, professor of geography at the University of Stockholm, and Dr. L. D. Stamp, professor of social geography at the University of London.

58 Colombians Visit U. S. Farms

A group of 58 farmers and agricultural leaders of Colombia recently concluded a 3-week tour of southern and eastern United States where they observed modern farming and processing methods. The tour was organized by the Colombian farm magazine, *Agricultura Tropical*, as a means of broadening the agricultural knowledge of its readers. Participants came at their own expense. The group's itinerary included a study of sugarcane, citrus, and range cattle production in Florida; inspection of cotton, peanut, and livestock production, as well as food preservation methods, in Georgia; a visit to the Tennessee Valley Authority area; a study of tobacco growing and processing in North Carolina; a visit to the United States Department of Agriculture research center at Beltsville, Md.; a study of meat processing and dairy production and processing in New Jersey; and a study of poultry processing in New York City.

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ALICE FRAY NELSON, EDITOR

Italian Agriculture and ERP

—Part I*



Italy's whole farm economy is oriented toward increased production, without much concern over the possibility of surpluses, either in the immediate or more remote future. There is a large potential domestic market for certain agricultural products and real possibilities of expanding

external markets. Pressure of unemployment is very great. Conservation of foreign credits is imperative and Italy therefore attempts to produce as much as possible. Nevertheless, there is need for gearing production to foreseeable requirements, domestic and foreign. At the same time, measures should be taken to increase consumption of certain "protective" foods by a large segment of the population.

*Adapted from "Italian Agriculture and ERP, Mid-Year 1950," a report by the Economic Cooperation Administration's Special Mission to Italy, Aug. 10, 1950.

Part II of this article, a discussion of dollar assistance and the investments under the European Recovery Program, will appear in the December issue of *Foreign Agriculture*.

The contribution of the European Recovery Program to the increment in Italian production is already obvious, but its full effect will particularly be felt in the long run. While adverse weather conditions can, of course, bring about cuts in production, basic improve-



These are the people of southern Italy who feel the pressures of underproduction and overpopulation.

ments being made through ECA programs (particularly the long-term investments) will assure a rising curve of output. These long-term programs are primarily designed to extend the area of cultivable land through reclamation and to increase unit yields through better cultural practices and improvement of the land, thus accomplishing the basic aim of ERP assistance to Italian agriculture.

While definite progress has already been made in agricultural production, far greater achievements are in sight if the announced intentions of the Government are carried out during the next few years. ECA assistance is now being integrated into a long-term investment program for depressed areas that is to be carried on by the Italian Government over a 10-year period.

The Agricultural Situation

Production

Italy's total farm output has recovered sharply from the low levels of the immediate postwar years. Crop production in 1950 may exceed the satisfactory harvest of 1949, thanks to a combination of generally favorable weather for small grains, greater availability of the means of production (especially fertilizers and machinery), and relative peace on the labor front. Production of wheat (the country's basic crop, making up about one-fourth the value of total farm production) has probably increased to between 7.5 and 8 million metric tons, compared with a 1934-38 average of 7,280,000 and an all-time record (1938) of 8,184,000 tons.

Of particular interest is the continued rising curve of livestock slaughter. Total slaughter in 1949 exceeded the 1948 level by about 12 percent; the explanation most frequently advanced was the spring drought, which reduced forage availabilities. However, in the light of the fact that slaughter during the first months of 1950 again ran 10 percent ahead of last year's corresponding months, this explanation loses some of its cogency.

The alternative conclusion is that livestock numbers are quite high. If the current level of slaughter is maintained for the remainder of the year, 1950 meat production would be approximately equal to the 1940 level, the earliest year for which comparable data are available.

No official data are kept in Italy on milk production, but the above conclusions on livestock numbers and the improved forage situation, together with the cur-



Italian shepherd. Sheep numbers in Italy are increasing.

rent milk price depression and other empirical indices, would lead one to suspect a level of production somewhat in excess of prewar.

Foreign Trade

The total value of agricultural exports in 1949 was 41 times that of 1938 in terms of current lire (compared with a 55-fold increase in farm prices) and exceeded the 1948 value by 17 percent. The total volume of some products (fruit, vegetables, rice) exported equaled or exceeded the 1938 level, while

others still lagged considerably behind the prewar level, especially wines, cheese, olive oil, and silk.

Agricultural products represented 23 percent of the total value of 1949 exports, compared with 22 percent in 1948 and 34 percent in 1938. Although this may be thought to be a somewhat disappointing figure, it must be borne in mind that, while industrial production has already exceeded prewar levels, gross agricultural production in 1949 was still somewhat below prewar, and the increase in the population has upped domestic requirements. On the other hand, it bears pointing out that the international competitive price position of Italian agricultural exports is a great deal better than that of certain industrial products, exports of which are in large measure sustained only through Government insistence on bilateral agreements.

Agricultural exports during the first months of 1950 were running considerably ahead of the preceding years for most commodities, especially those of cheese, rice, potatoes, fruit, vegetables, wines, and olive oil. Cheese exports during the period closely approached the level of the corresponding months of 1938.

The geographical pattern of agricultural exports during 1949 showed a marked change from the preceding year in that less than 6 percent of total agricultural exports went to the United States as against 14 percent in 1948. In absolute figures, the value of agricultural exports to the United States declined from 17.5 billion lire to 8.4 billion.¹ Most of the difference was taken up by Germany, whose imports rose from 9.5 billion lire in 1948 to 26.4 billion in 1949 (7.6 and 18 percent, respectively, of total agricultural exports). The United Kingdom was the leading importer of Italian farm products for both years, accounting for 21.6 and 23.2 percent, respectively, of Italy's total agricultural exports for each year.

A geographic breakdown of exports for 1950 is available only through April, and only by individual commodities. The figures show that, while hard cheese exports to the United States for the 4-month period are nearly double those of last year, soft cheese shipments to the United States have declined further. Greece and France took large quantities of cheese during the first 4 months of 1950. Most of the 1950 increment of vegetable exports was accounted for by the United Kingdom. Lemon exports to the United States rose more than twofold over the 1949 period.

¹ According to Italian figures, which are chronologically comparable but are, in absolute terms, considerably below United States import valuations.

Shipments of deciduous fruit, as well as of wines, increased to practically all countries. As regards olive oil, it should be noted that nearly the entire current Italian exports are re-exports of other than Italian origin.

On the whole, the signs point to even greater possibilities for expansion of agricultural exports to other European countries, especially following the enactment of further trade liberalization measures and the European Payments Union (EPU), with a possible limited expansion in certain sectors to the United States.

Prices and Costs

The over-all farm price index (1938=100) of the Ministry of Agriculture's UNSEA (Statistical Office) dropped 15 percent, during 1949, from 6029 in January to 5154 in December, resulting in an annual average for 1949 of 5490, as compared with 5665 for 1948 and 5475 for 1947. The over-all index of the cost of goods and services purchased by farmers dropped only 7 percent during 1949, the annual average remaining at 6493, compared with 6578 in 1948 and 5472 in 1947. These data indicate that, while there has been little variation in farm prices over the past 3 years, *on an annual average basis*, there has gradually developed an ever-increasing disparity between prices received and paid. (It should be noted that the annual averages are unweighted arithmetic means of the monthly averages.)

In spite of the continuous clamor about the price-cost disparity on the part of farm organizations and agricultural interests in general, the price situation has a fundamentally much more worrisome facet, i. e., the excessive and apparently (by now) chronic spread between farm prices and retail prices of foodstuffs. This is a serious threat to the country's agricultural economy, since the excessive retail prices, in combination with the low income level of a majority of the population, are a very real obstacle to greater domestic consumption of "protective" foods and are thus causing not only current phenomena of "overproduction" in certain sectors (wine and milk, for example) but are also endangering plans for an expansion of the agricultural plant and a shifting from the "basic" crop wheat to more intensive crops of greater nutritional value and to forage for greater livestock production.

Means of Production

Estimated sales of fertilizer during the crop year 1949-50 showed a quite satisfactory increase over



A fortunate Italian farmer—he owns a team of oxen.

recent years; while sales of nitrogenous fertilizers are estimated to be up to the 1935–39 average and those of potash have probably exceeded prewar by one-fourth, consumption of phosphates is still considerably (about 12 percent) below prewar. Applications of phosphates should be increased further because of the presumptive depletion of phosphate reserves in the soil during the war and immediate postwar years when little phosphate rock was imported.

The nitrogen fertilizer industry is still working below capacity, with several new plants under construction or planned, which reportedly will double the capacity by 1953–54. It would appear, however, that drastic price reductions must take place before any great increase in consumption can be achieved. Such a reduction would seem to depend almost entirely on the construction (partly planned and under way) of new low-cost capacity and the gradual retirement of high-cost plant. It should be borne in mind, also, that current Italian nitrogen-production potential is partly dependent on the prevailing production of “surplus” electric power (electric power production has not quite kept pace with industrial expansion and population growth and is, furthermore, plagued by periodic drought-caused shortages, such as in 1949) and partly on coke production, which is slowing down because of existing surpluses.

At the end of 1949, about 60,000 farm tractors were in operation, compared with 41,000 in 1940. This increment, apart from some relief imports during the immediate postwar period, and limited current private and Government imports, was due almost entirely to a boost in domestic production, as indicated by the fact that, whereas in 1940 nearly 72 percent of Italy's farm tractors were of foreign make, at the end of 1948 more than one-half of the machines were of Italian production. A good deal of this success may be attributed to the adoption by manufacturers of a new policy of constructing tractors adaptable to the large number of medium and small farms in Italy. New tractor registrations during the first 4 months of 1950 were considerably larger than during the first quarter of last year. In spite of this good progress in mechanization, it is generally agreed that there is room for a further sizable increase in tractor numbers. Even some labor organizations agree in principle that greater farm mechanization is desirable, but, in practice, local labor-imposed ordinances or collective labor contract clauses place serious limitations on the use of machines in many areas and for many operations.

Policies

Agricultural policy in Italy is currently focused on the following four principal aspects (not necessarily

listed in the order of their importance) : prices, tariffs and trade, land reform, and investments. Naturally, all these aspects are structurally interrelated among each other and with broader economic policies in the final analysis.

Prices

The Government's current price policy is almost entirely concerned with the support of wheat prices at a level that will permit the maintenance of a high level of production by means of Government purchase of a fixed quota of the harvest while containing the price of bread within reasonable limits. This year's quota was originally set at 1.5 million tons, the same as last year, but was upped to 1.6 million later. There is a likelihood that it may be further increased if the harvest is better than officially forecast. In addition, many Provincial co-ops are organizing local "pools," but financial problems are great. Furthermore, the

Government fixes the price of sugar for the same reasons, and sponsors quasimonopolistic agencies for the marketing of rice and hemp.)

The problem of wheat prices is probably one of the basically most controversial and involved in Italy today. The principal arguments for maintaining a high domestic price (currently about 50 percent above the CIF price of United States wheat) are (a) fear of excessive dependence on foreign sources in view of the international political and economic situation, (b) unsuitability of many central and southern lands to other crops, and (c) lack of markets for alternative crops.

The problem of maintaining the price of bread at last year's level without an excessive drain on the treasury is serious. The decision will be difficult to make. On the one hand, the price of bread has a considerable influence on the cost of living of low-income groups (aside from the political capital that the Communists



Scutching hemp in Italy. The work is done by hand.

will presumably make of a price increase); on the other hand, the financial resources of the Italian Government are so strained, especially under the new intensified investment program, that a large-scale subsidization of the price of bread may be difficult to justify.

Tariffs and Trade

Italy has made efforts to expand dollar exports in order to supplement the dollar buying power provided by ECA and which has financed imports of many important foods and raw materials. In the face of insufficient dollar earnings, policies were also directed toward increased substitution of nondollar for dollar imports.

Italy's trade policy in the past few years has in general been one of bilateral agreements designed to export a maximum of its below-capacity, high-unit-cost industrial production and, wherever possible, also a maximum of its agricultural specialty products, while at the same time assuring for itself essential supplies from other than dollar sources. In the short run, this policy seems to have been quite successful, at least from an agricultural point of view, but in the long run the competitive position of Italy's agricultural exports would suffer under these barter deals. It may be hoped that under the current liberalization program and EPU the need for bilaterals will be lessened.

The fluid situation in the tariff field is beginning to solidify a little. It appears now as though the "general" tariff will be saved partly for bargaining purposes, with an "operating" tariff to be worked out gradually. In the meantime, there will be a "temporary" tariff applied to some commodities from July 15, 1950, to July 15, 1951. For most agricultural products this tariff will differ little from the past 10-percent license fee.

An interesting sidelight on the tariff is that the Government, having obtained, at Annecy, agreement to a 30-percent tariff on wheat, plus an additional 15 percent so long as imports are state controlled, has now decided that it is unnecessary to apply the tariff altogether as long as the Government handles wheat imports.

Land Reform

Considerable strides have been made in the Government's land reform program since the beginning of the year. The most spectacular and concrete accomplishment has been the passage, in May 1950, of the

law for land redistribution and development in the Sila and contiguous central Calabrian territory. (It will be recalled that only last November Prime Minister De Gasperi, following a bloody incident involving unemployed farm workers, announced that an advance land reform project in this critical region was about to be presented to Parliament.)

At this writing, expropriation measures for about 16,000 hectares (out of an estimated total of 65,000 to be expropriated) have already been decreed by the Cabinet (as required by the law) in several communes. Practically all of these 16,000 hectares belong to three of the largest and best known of southern Italy's "latifondisti." It is reported that the expropriation plans, which, according to the law, must be posted on the communal billboards for 15 days, were initially met with incredulity by the peasants (as well as by the landowners) who had heard about land reforms before but had never seen one progress even to this stage. The incredulity soon gave way to enthusiasm (on the part of the peasants), and the Sila Authority, which has had nearly a year of quiet preparation for the enormous task, is getting ready to allot a good share of the initial area before the end of 1950.

Meanwhile the Government has appointed a President and Director General for the Authority in the persons of Prof. Caglioti, until now Commissioner of the Sila Board during the planning stage, and Dr. Leoni, formerly with the Authority for the Colonization of the Sicilian Latifundia. It can be safely said that, if the Sila Authority executes the task with the kind of know-how and enthusiasm demonstrated during the planning stage, this will be one of the greatest local socio-economic projects ever undertaken in Italy. It can also be stated that on the success or failure of this project will depend in large measure the success or failure of the entire land reform program.

The next step in the legislative plan is the so-called "extract" land reform law that will give the Government authority to proceed with land redistribution in other problem areas in a manner similar to that employed in Calabria.

Another important problem to be faced in connection with land reform is the consolidation of holdings. In many areas, particularly in those where the land reform will operate, the land within a radius of miles around the villages has been subdivided and resubdivided for centuries among the local families, with the result that one peasant often owns as many as a dozen fractions of an acre in different localities. This is bad not only from a social and productive point of view,

but also for purposes of soil conservation, since it is impossible to practice such simple measures as contour plowing or strip cropping in the midst of such a lay-out of properties.

Such a consolidation is by no means an easy task, and will, in some places, even be entirely out of the question, for often the economic and social attachment of the family to their particular parcels of land (which they may have, through successive generations, coaxed from a rocky piece of hillside to a veritable garden) is very great. Perhaps the consolidation must come about gradually.

In addition to the physical task, of course, there is the extremely difficult requirement of technical guidance, cooperative management of certain aspects of the farm community, and, at the basis of it all, the general elevation of the educational level of the peasants. Great concern is expressed over the possibility that many of the day laborers of southern and central Italy who are to become small owners will not have the necessary psychological and technical preparation for the management of a piece of land of their own. In this connection considerable difference of opinion

among Italian experts is noted regarding the degree of compulsion that could and should be imposed upon the grantees of expropriated land in order to "make" them conform to rational cropping and soil management patterns.

Here, too, no over-all solution can be found, since the technical preparation, degree of self-discipline, and susceptibility to imposed discipline vary considerably from region to region.

These, then, are some of the most pressing questions that need to be answered and problems that need to be solved before the land redistribution begins. The magnitude of such an undertaking is clear. Although no detailed calculations of the different necessary investments has been made, the job of settling an estimated 80,000 families of new small owners on about one-half million hectares, most of which are devoid of buildings and public utilities, will involve a degree of planning and financing that may well tax the capacities of the Government to the utmost.

A discussion of the investment program (Part II of this article) will appear in the December issue of *Foreign Agriculture*.

"Cooperatives" Promoted in China

The Chinese Communist Government has plans for setting up consumer cooperatives in various parts of the country. The pattern to be followed is indicated in a directive that appeared in a recent issue of the Canton newspaper, *Nan Fang Jih Pao*. It says:

"(1) Consumer's cooperatives must be self-supporting. At the beginning, however, the Government will give them the necessary support.

"(2) Consumer's cooperatives must be run according to the needs of the laboring masses they serve. Merchants, capitalists, landlords, and wealthy farmers should be barred from holding shares of consumer's cooperatives. In the issuing of supplies to members, the cooperatives must especially pay attention to the daily necessities such as food, edible oil, salt, fuel, and cloth required by their members. In the case of vital necessities, a definite quantity must be made available through a rationing system; other daily necessities may be sold as required.

"(3) Consumers must not be forced to hold shares of these cooperatives. Membership in these cooper-

atives is entirely voluntary. Each share may be tentatively fixed at one parity unit. Each member has only one vote, no matter how many shares he may hold.

"(4) Accounts must be clearly and properly kept. Funds must be deposited with State banks. Measures should be taken to guard against robbery, theft, fire, or loss from other causes. Hoarding is forbidden.

"(5) A bonus may be paid to cooperative cadres at certain periods if their service is excellent.

"(6) Dividends may be paid to members at periods to be decided by the members themselves.

"(7) In case a ch'u government cannot organize a consumer's cooperative before the end of May, it should set up a branch sales office of the Trade Company for distribution of the Company's food, cloth, and other goods.

"(8) Consumer's cooperatives must get their stores direct from the Canton General Merchandise Company and the Canton Food Company. Goods needed by the people which cannot be obtained from these two companies may be bought from private dealers."

Peat-Land Farming in Finland

by ERIC ENGLUND



Finland is experimenting with large-scale farming on reclaimed peat land high above the Arctic Circle—and hoping that it will pay as a private enterprise. The largest experiment is Teuravuoma, a state-operated project aimed at commercial hay production, which it is hoped will make possible the introduction of dairy herds in addition to providing feed for draft horses used in the lumber industry.

That experiment, located 60 miles north of the Arctic Circle in one of Finland's largest peat areas, results from a much smaller project inaugurated in 1947—the Kelokaara "pilot plant" experiment. Results of the Kelokaara experiment, a non-Governmental project covering only 50 hectares,¹ were so encouraging that the Government in 1948 authorized the larger experiment in the far north where most of Finland's peat land is found.

Back of this agronomic-economic experimentation is a lot of Finnish experience in farming peat land on a small scale. Finland has about 30,000 square miles of these bogs, containing the waterlogged and partly decayed and carbonized remains of mosses and other marsh plants. Much research has been done in soils, agronomy, plant science, and related fields, and in this

¹ A hectare equals 2.471 acres.



Dr. Englund and Professor Pihkala at Kelokaara, in a field of timothy and foxtail, ready for the second-year cutting.

the Finns have kept in touch with work done in other countries. On the economic side of these experiments, "We are applying the American system of farm-management accounting and analysis," said Prof. Rurik Pihkala, University of Helsinki farm economist. "My agronomist associates are chiefly concerned with the problem: Will it grow? My principal job is to answer the question: Will it pay?"

During the summer of 1950 I had the opportunity to see something of both the Teuravuoma and Kelokaara experiments during a tour of Lapland planned as part of the program of the Nordic Federation of Agricultural Research, which met in Helsinki in the last week of June. At the close of the tour, I spent a day with Professor Pihkala at Kelokaara.

The Kelokaara "Pilot Plant" Experiment

Kelokaara is located about 150 miles "as the swan flies" south of Tornio and near the Lappi station on the railroad south from Kemi. It was started with the hope that the clearing of new land would go a long way toward settling displaced population after World War II and help prevent excessive division and fragmentation of existing farms. However, the Karilians, the most numerous of the displaced peoples, came from the southeast and did not wish to go north. Moreover, land clearing alone, they said, "won't give us lands before we die."

The work at Kelokaara was begun June 10, 1947, and has this history:

(1) Clearing was finished between June 10 and September 5, 75 working days in all, at a cost of 23,000 Finnmarks per hectare. Clearing consisted of removal of trees and stumps, digging ditches, and preparing the ground for planting.

(2) Planning of the project was done by the College of Agriculture, University of Helsinki. The book-keeping and detailed statistical and cost-and-income analysis are being done in the Department of Agricultural Economics of the College.

(3) The financing was as follows: The Land Clearing Company (with the Government a minor stockholder and major creditor) cleared the land at its regular charges. The Government-owned chemical com-

Dr. Englund, Assistant Director, OFAR, was Agricultural Attaché to Sweden and Finland when this article was written.



Administration building at Teuravuoma. Trees like these are being cut to make way for new farms.

pany furnished the fertilizer at its regular rates. The Commercial Company of Finland's Farm Organizations, a private concern, furnished the seed at its regular prices.

(4) The seeding was done late in the fall, 30 hectares the first year and the remaining 20 hectares the following year. The rate of seeding of the 30 hectares was 22 kilos ² of timothy and 6 kilos of foxtail. Twenty hectares were seeded with 22 kilos of timothy and 10 kilos of smooth brome grass. It was believed that the timothy would last 4 years, and that the "seconds" would then take over. During my field visit it was pointed out that the stand had improved in the second year, despite the fact that survival in the first year had been rather low.

(5) The fertilizers applied per hectare were: 500 kilos of raw phosphate, 200 of potash (40 percent), and annually 50 kilos of ammonium sulfate.

(6) Finally, the financial results for the first 2 years: (a) Total investment about 2 million Finnmarks, averaging 40,000 per hectare, including cost of labor and fertilizer up to the first crop. (There are no buildings at present, only "suitcase farming." The hay is cut, hauled away, and sold.) (b) The net re-

sult is that nearly one-third of the total outlay was paid from proceeds of the sale of hay and timothy seed in the first 2 years. The yield in 1949 was 4 metric tons of hay per hectare and 3,000 kilograms of timothy seed from 20 hectares.

One-third of the clearing cost was paid for by the Government under its regular subsidy provisions, available to farmers generally. The 50 acres were not purchased but rented from a private owner.

The results of this experiment were considered so encouraging that the Government in 1948 made provision in its regular budget for the larger experiment farther north, at Kolari.

The Teuravuoma Experiment

In Kolari Parish is one of Finland's largest continuous peat areas including approximately 20,000 hectares of which about 15,000 are owned by the state. The area also includes north Finland's largest forest drainage system, built some years ago. The Teuravuoma enterprise in experimental farming was founded there in 1948 under the initiative of the state.

Its purpose is to determine whether large-scale hay production is possible on a paying basis. The work will be mechanized to the greatest extent possible, and the profitability of the enterprise will be subjected to

² A kilo (kilogram) equals 2.2046 pounds.



New farm home at Teuravuoma, occupied by a displaced family.

careful study, using the American system of farm-management bookkeeping and analysis.

Clearing work is being done on approximately 200 hectares, of which only about 15 have been planted. At the time of my visit in July 1950 a good stand and promising growth of timothy covered the entire 15 hectares. The full plan is to clear, drain, and farm approximately 600 hectares.

The drainage system, first, consists of a number of deep ditches or drainage canals. The adjoining fields will be provided with cover drains, not of tile but of wooden tubes in sections about 3 feet long, discharging into these canals or large ditches. This "wooden tile" is being made "on the spot" from trees removed from the land that is to be farmed. A machine has been constructed for drilling a hole, about 2½ to 3 inches in diameter, through the center of these 3-foot

sections. Slits are cut in the side to admit water, but at an angle to preclude clogging, and the ends are shaped so that each will fit into the other. In peat they will last a long time, probably as long as 50 years, said the Finnish experts. The process of making these wooden tubes is mechanized. Huge ricks were laid up on the place, resembling at a distance long ricks of fire wood.

The peat lands of Teuravuoma were formed on a relatively level area, partly on flooded ground and partly on swampy forest land. In this general area there is very little mineral soil, and therefore it is not suitable for ordinary colonization purposes. The peat is, for north Finland conditions, unusually deep, at places as much as 5 meters (16 feet). For the most part, it consists of a wedge peat and brown moss.

Investigations, which have now covered more than half of the total area, show that about 70 percent is tillable. About one half of the tillable area is in good condition, and the other half is acceptable. The nitrate content of the peat on the Teuravuoma project is even and high; calcium oxide averages 0.6 percent; the ash content varies from 2½ to 6 percent.

Walking over the area, one is impressed by (1) tall trees, bushes, moss, and other evidence of ground "untouched by man"; (2) the level field with a good stand of timothy, an area that hardly more than 12 months earlier was a wilderness; (3) long, deep ditches, here and there cut into clay bottom but for the most part with only peat in sight; (4) men, machines, and horses busy all around; and (5) trees, on the stump a short time ago, now being made into "wooden tile" to drain the land where they had stood.

The 15-hectare field now growing its first crop of hay was in forest as late as June 1, 1949. The cost of clearing land there is only about one-third that in



Children of displaced families from Petsamo. For them and other displaced persons, homes are being carved out of the forests and peat lands of Lapland.

south Finland because there are no stones, trees are smaller and farther apart, and most of the stumps and roots can be pulled out by the Finnish stump-rake and crawler tractors. The clearing cost per hectare was 38,000 Finnmarks.

The covered ditches will be spaced as required—10 to 40 meters. The object is to make the fields large and free from obstruction to permit the maximum use of farm machinery. The history of the 15-hectare field already seeded is, briefly, as follows:

(1) Clearing began June 1, 1949; the field was plowed and worked and then seeded in August 1949; ditches were dug about 1 foot wide and approximately 4 feet deep. No lime was applied that season but the following fertilizer applications were made per hectare: 1,000 kilos of raw phosphate, 500 kilos of 40 percent potash, and 100 kilos of ammonium sulfate (50 kilos in the fall and 50 in the spring of this year). Professor Pihkala was of the opinion that this application of nitrogenous fertilizer was too high, entailing a greater cost than advisable. He expects, after inspecting the stand, that the field will yield this year about 3 metric tons of hay per hectare. Next year's application of fertilizer will be 200 kilos each of phosphate and potash and about 50 of nitrate.

(2) It was seeded with 22 kilos of timothy seed and 6 kilos of foxtail. It is hoped that when the timothy gives out in about 4 years, the foxtail will "take the field" and produce satisfactorily. If both die out, the field will be plowed and seeded again. No cover crop is used.

(3) The Department of Agricultural Economics, University of Helsinki, is the agency for planning and making economic analyses for this project as for the earlier, smaller project described above. The technical people are playing a large part.

There is a great deal yet to find out about the question of *feeding quality* of peat-land hay—at any rate

about hay from the particular lands where these experiments are located. The belief was expressed that there may be certain mineral deficiencies, the nature and extent of which are not yet clear. Finnish leaders of the project also expressed interest in possibilities of supplying economically, in feeding, such specific elements as may be lacking in peat-land hay from the standpoint of animal nutrition.

"Why in Lapland"

The question was asked, "Why undertake an enterprise of this sort in Lapland, far above the Arctic Circle?" The answer:

(1) In the north are the country's chief resources of peat land—about 5.7 million hectares, or 22,000 square miles. About a million hectares are believed to have farming possibilities.

(2) The forest, too, benefits by the ditching, as was abundantly shown in experiments elsewhere.

(3) Northern Finland needs hay for its horses in the forest work and for increased production of milk. It is expensive to ship hay from the south, and fresh milk "doesn't reach there." In that part of the country milk is especially expensive and scarce. The health of the people, particularly of the children, suffers by that scarcity. I was told that in far northern Finland there are forest workers who "haven't had milk for two years" and that "children suffer from rickets and other nutritional difficulties."

(4) There is little or no possibility of growing grain economically that far north; hence it must be hay, and good hay, for sale and eventually also for feeding to dairy cows on or near the place where grown.

(5) If this experiment proves successful, it will help toward stabilizing and improving the public health, the living and social conditions generally, and the whole economy of Lapland, so recently risen out of the ashes of war.



This wooden "tile," used as drains at Teuravuoma, is made "on the spot" from trees cleared from land that is to be farmed.

Meat From Temporary Grass in Britain

By A. B. LEES

There is a tradition in Britain that grass produced in an old, cherished pasture makes better livestock feed than grass grown in a temporary pasture. Postwar experiments by British agricultural scientists, however, indicate that properly managed rotation pastures can produce more grass and meat per acre than permanent pastures.

During World War I much old grassland in the United Kingdom was plowed and planted to crops, but when the war ended there was a general shift back to permanent pasture. Some of this land was neglected and declined in productivity. Since the last war there has been another significant shift from crops back to grass, accompanied this time, however, by a campaign to keep this land in rotation so that production will not be merely maintained but increased.

The work of Sir George Stapledon and others on the use of improved strains of grasses and clover, together with the use of grass in crop rotation, has attracted wide attention. It has shown that good rotation pastures, known in the United Kingdom as leys, often produce more grass than permanent pasture.

Results of Meat Production Tests

In recent meat production trials, conducted in eight different districts of Britain and spread over three grazing seasons, new leys have produced up to 476 pounds of meat an acre.¹ In all cases the livestock was on ordinary farms, but records were kept by research workers employed by Britain's Ministry of Agriculture at the Stratford-on-Avon Grassland Improvement Station. Seed mixtures for the leys were mostly of ryegrass and clover, with timothy or cocksfoot added where conditions warranted. Soil analyses were practically the same both for leys and permanent pasture.

In Leicestershire, famous for beef production off the grass, one of the leys on which experiments were conducted was a 26-acre field plowed up during the war to give two first-class crops of potatoes and one of wheat. The ley adjoined the permanent pasture

against which it was tested after being drilled in spring with the following mixture:

	Pounds per acre
Italian ryegrass------(NZ)---	8
Perennial ryegrass-----S24---	6
Do-----A101---	4
Do-----S23---	14
Red clover-----S123---	2
White clover-----S100---	1
White clover Kent-----	0.5
Total-----	35.5

The ley was sown direct, not under a cover or nurse crop. In the first season, the pasture carried one bullock and one sheep to the acre from June to October. This was the only one of the centers where gains on leys did not exceed those on permanent pasture. The difference was 15 pounds live-weight increase an acre in the first year. In the third year, however, the old grass was only 3 pounds ahead of the ley. Even so, the quality of the meat from the ley was better—31 out of 43 cattle dressed out at more than 58 percent of live weight compared with 24 out of 39 from the permanent pasture.

At the second Leicestershire center, the ley out-yielded the permanent pasture by 18 percent. At the other seven centers in Sussex, Essex, Hereford, Bedford, Durham, and Norfolk, the ley produced greater live-weight increases than the old grass. At Bedford, the ratio was no less than 59 percent in favor of ley and in Sussex, 54 percent. The Sussex Trial was a particularly interesting one:

To meet soil requirements as shown by analysis, the permanent pasture was dressed with 2 tons of ground chalk per acre in 1944 and 100 pounds of triple superphosphate in March 1945. In 1943 the ley, which was first to be planted in corn, was given 300 pounds of compound manure per acre. After the seed had been sown, each acre of the ley also received 3.5 tons of chalk, 400 pounds of superphosphate, and 100 pounds of sulfate of ammonia. Both fields were also dressed with 500 pounds of basic slag to the acre in December 1945 and with 100 pounds of nitro chalk to the acre in March 1946, with no further manuring.

In each year, both pastures were stocked from spring to autumn with bullocks and heifers for fattening and grazed lightly with sheep during the winter periods. Each field was divided into two paddocks to allow

Mr. Lees is Correspondent, *Farmer and Stock-Breeder*, London.

¹This compares with 500-700 pounds of meat per acre produced from some United States irrigated pastures.

TABLE 1.—Comparison of gains on permanent pasture and leys

Item	Permanent pastures			Ley		
	First year	Second year	Third year	First year	Second year	Third year
Grazing days an acre	161	148	142	242	192	138
Live-weight increase in pounds an acre	194	264	184	476	337	242
Live-weight increase in pounds per grazing day	1.21	1.78	1.35	1.97	1.77	1.78
Average initial weight of cattle, hundredweight	7.8	8.1	9.0	8.5	8.5	9.0

a simple system of rotational grazing, and the bullocks were regularly weighed.

Ley Maintains Higher Output

As shown in the table, the ley maintained a higher output than the old grass over the season as a whole in each year, on the basis of live-weight gain an acre.

In the first and second years, more grazing days were obtained from the ley while the live-weight increase a day in the first year was 1.21 pounds on the permanent pasture and 1.97 pounds on the ley. In the second year, there was little difference in the live-weight gain of the cattle. In the third year, when the stocking intensity, as measured by the grazing days, was practically the same on both fields, the live-weight gain of the cattle on the ley was 1.78 pounds a day,

and on the permanent pasture, 1.35 pounds a beast a day (ratio 132:100). It must be noted that drought occurred in the third year.

The live-weight increase an acre was greater in each year on the ley, the latter exceeding the permanent pasture by 146 percent, 28 percent, and 32 percent in the 3 years of the trial. Seven out of 29 cattle from the old grass were top grade at market compared with 11 out of 36 from the ley.

Methods utilized at the Sussex center can be taken as an example of what British agricultural scientists would like to see adopted by farmers in various parts of their country. If British farmers generally adopt these methods of ley farming, they will go far in contributing to the success of the Government's 4-year program to increase the output of Britain's farm land.



Sir George Stapledon, Britain's foremost authority on grass, tells how to reclaim rundown land by sowing temporary grass.

Canadian Agricultural Policy

—Part II

by PHILIP C. HABIB



The year 1949 did not see any really new proposals for developing Canadian agricultural policy. In place of startling proposals there has been, and continues to be, a pressure for maintaining and extending existing legislation and programs.

The general feeling among Government officials and organized farmers has been that the legislation already in effect has sufficient range to provide for programs necessary to assist agricultural stability. The pressure has been for renewal of those measures, such as price support and Wheat Board purchases, which are temporary in nature, and for the implementation of marketing laws and schemes already in effect.

The most important of these pressures has been directed toward extending and placing price-support legislation on a permanent basis. As the market prospects for various commodities worsened, the farmers have been turning to demands for price support.

The Canadian Federation of Agriculture, the powerful spokesman for Canadian farmers, has gone on record favoring the more liberal application of the Agricultural Prices Support Act and the institution of a permanent price-support mechanism. They have felt that the Government has been overly timid in the matter of price supports and has acted only when the situation in individual commodities became acute.

Officials of the Federation of Agriculture have suggested that price support should be made automatic in action and more definite in application. They believe it would be desirable to have a precise formula for price support over a range and based on a specific base-period relationship. They point out that this arrangement can come within the scope of present legislation with some modification.

Government officials have been cool toward the proposal of rigid support procedure, pointing to the difficulties encountered by the United States. Minister of Agriculture Gardiner has agreed that a permanent price-support act is desirable, and a continuation of the current Act was passed in the 1950 session of Parliament. But there has been no indication that the

Government is convinced that an automatic, formula-type support system would be desirable.

The price support proposals and actions of Canada have direct relevance to United States-Canadian agricultural relations. If Canadian farm products are permitted to seek their own price levels without support, they will in many cases be priced lower than United States supported prices. This has already been illustrated in the case of eggs and potatoes. The result is that exports to the United States increase rapidly.

The egg situation of the past few months is an excellent illustration of the possibilities and results of Canadian price policies. When egg purchases for the United Kingdom contract ceased in mid-December



Harvesting the plum crop on Canada's Niagara Peninsula. The marketing of much of Canada's fruit is controlled by Provincial marketing boards.

1949, the floor under egg prices disappeared and prices declined rapidly. In a period of a month, exports to the United States increased from less than 200 cases per week to more than 11,000 cases. On January 26, 1950, a price support program was announced that raised egg prices to a level that was slightly above current United States prices. The result was quick to take effect. Egg exports to the United States declined to less than 1,000 cases a week.

The intimate relationship and interdependence of Canadian and United States agriculture can only mean that policy developments in either country directly and immediately affect agricultural and trade relations between the countries.

1949 Legislation and Orders

AGRICULTURAL PRODUCTS MARKETING ACT, 1949. Under various Provincial marketing acts, there is authority for establishing marketing boards or schemes to regulate or control the marketing of agricultural products produced and marketed within the Province. With the end of the war and the gradual disappearance of Canadian Government controls, producer groups again began to urge federal legislation on organized marketing. The desire was to permit controls for orderly marketing of products moving in inter-Provincial trade. The Canadian Government approved of the proposal as a continuation of its general policy of assisting farmers to help themselves. The Agricultural Products Marketing Act was passed in April 1949 and provided that:

The Governor in Council may by order grant authority to any board or agency authorized under the law of any province to exercise powers of regulation in relation to the marketing of any agricultural product locally within the province, to regulate the marketing of such agricultural product outside the province in interprovincial and export trade and for such purpose to exercise all or any powers like the powers exercised by such board or agency in relation to the marketing of such agricultural product locally within the province.

The Act consists mainly of a title and the quotation above. It is general in its scope and may apply to any agricultural product. It permits not only marketing control but price control as well.

In this way, it is possible through marketing boards to provide producer groups within a Province with complete marketing control over any commodity produced in that Province. This assumes that such producer groups desire this control and can have their scheme approved by their own Province. The Canadian Government does not initiate the setting up of boards; rather it has merely passed the ancillary legislation and has left it to the Provinces to institute the necessary mechanism.

Mr. Habib is Assistant Agricultural Attaché, American Embassy, Ottawa, Canada.

Since the passage of the Act the following marketing boards have had certain of their powers extended: The Nova Scotia Marketing Board, The British Columbia Fruit Board, and The British Columbia Coast Vegetable Marketing Board. At the present time the applications of the British Columbia Interior Vegetable Marketing Board and the Ontario Pear, Plum and Cherry Marketing Board are being considered. These boards have had extended to inter-Provincial and export trade the powers that they have received from their Provincial legislatures.

COARSE GRAINS MARKETING THROUGH THE WHEAT BOARD. Early in 1949 the Government of Canada announced its intention, beginning with the crop year starting August 1, 1949, of making the Canadian Wheat Board the sole marketing agency for oats and barley produced and sold in the Prairie Provinces of Manitoba, Saskatchewan, and Alberta. This action was authorized by an amendment to the Wheat Board Act passed by Parliament in 1948. A monopoly over inter-Provincial and export trade in oats and barley is thereby extended to the Wheat Board.

The extension of Board marketing to oats and barley has been a continuation of the wheat marketing policy. In many cases the same farmer produces wheat and coarse grains. For years, Canadian farmers have been dissatisfied with Grain Exchange operations, and the action to place marketing of coarse grains under the jurisdiction of a Government board met the approval of leading farm organizations. Farmers have been generally pleased with the Government wheat marketing actions and are in general agreement on its extension to coarse grains.

The Board's operations in coarse grains are more complicated than for wheat. The structure of the market for oats and barley is different from that of wheat. Canada normally exports about two-thirds of its wheat crop, and the export price can therefore be used as a convenient guide in price fixing. On the other hand, roughly 95 percent of the total output of oats and 85 percent of that of barley is used within the country, and there is not a clear world market price for these grains: hence, export prices are not a dominant guide. In addition, the problem of pricing is further complicated by the fact that many growers do their own feeding.

The decision was made that oats and barley would be purchased by the Board on the basis of the initial price announced as a support price on March 15, 1949. The Government guaranteed a minimum price of 61.5 cents per bushel for oats and 90 cents for barley on the basis of No. 1 feed grades in store Fort William, or Port Arthur. Initial prices are thus being used as a means of support for coarse grains just as with wheat. For the 1949 crop, market prices have been above the initial payment, particularly for barley, which has been aided by the excellent market for malting barley in the United States.

The Board announced that it would sell freely and to the best advantage, in spot markets and on futures, to dealers and others for distribution to grain users.

RELAXATION OF IMPORT RESTRICTIONS. Effective October 1, 1949, the Canadian Government announced the suspension of import restrictions on all kinds of fresh fruits and vegetables in their natural state and on fruit juices. This was the final step in a series of gradual relaxations of restrictions on these commodities that had been taking place during the year. Many of these products had been on a quota restriction under import permits.

On February 8, 1950, it was announced that all food items still on restriction, with the exception of pork products, would be placed on a quota of 44 percent of the 1946-47 imports. The 1950 action, as well as that in 1949, was a response to the improvement in Canada's foreign-exchange situation.

DEVALUATION. This action had important effects on Canadian agriculture, which were discussed in Part I of this article.¹

Past Legislation

CANADIAN WHEAT BOARD ACT, 1935. The Canadian Wheat Board Act established a three-member board, appointed by the Governor General in Council, which was given power to accept deliveries of wheat from producers at a minimum guaranteed price and to make an equitable distribution to producers of any surplus resulting from operations during any crop year, or, in the event of loss, to transfer such deficit to the Canadian Government. The original policy was to establish the Board as an optional marketing channel that would free producers from depending on the open-market system, without preventing that system.

In 1943 a complete change in wheat policy was established. This policy discontinued wheat trading and gave the Wheat Board a monopoly on Canadian wheat marketing. Implementing this policy in 1946, the Government negotiated a 4-year wheat agreement with the United Kingdom and created a 5-year national wheat pool. The Wheat Board became the sole purchaser of Canadian wheat, with this control extended through the crop year 1949-50. The United Kingdom agreement and the 5-year pool both expired on July 31, 1950. The powers of the Wheat Board as the sole marketing agency have been continued through July 31, 1953, and the pooling arrangement has been extended on a 1-year basis.

This establishes outright Government control of wheat marketing for the designated period. If there is to be any modification of this control at the end of the period, it would probably be only in the direction of permitting optional open-market trading, but continuing operation of Board purchases.

AGRICULTURAL PRODUCTS CO-OPERATIVE MARKETING ACT, 1939. The Agricultural Products Co-operative Marketing Act was designed to aid farmers in organizing and administering marketing pools for the orderly marketing of their products (excepting wheat). By agreement with the pool selling agencies,

the Government would undertake to guarantee initial payments up to 80 percent of the average of the previous 3 years' prices, the exact percentage to be set by the Minister of Agriculture.

In the past, agreements have been made on many products. The Government's only loss has been in fox pelts. It is expected that the Act will become of greater service in the immediate future with the growing instability of markets. The assistance under the Act is designed merely to foster marketing organization on a voluntary pool basis and does not include the granting of price setting powers.

AGRICULTURAL PRICES SUPPORT ACT, 1944. The Agricultural Prices Support Act provides the necessary power to support the prices of any agricultural commodity except wheat. Formerly on a renewable basis the Act has been made permanent in its original form. The Agricultural Prices Support Board, instituted by the Act, has at its disposal a revolving fund of \$200 million, which is maintained at that level by annual appropriations, if there is any loss during the year. The Board is empowered "to endeavour to ensure adequate and stable return for agriculture by promoting orderly adjustment from war to peace conditions and to endeavour to secure a fair relationship between the returns from agriculture and those from other operations."

There is no formula established for determining the time of support or the level of support. The usual procedure is for farmer representatives to ask action from the Board, which then either accepts or rejects the representation. If the Board decides on support, it recommends for approval to the Government a support program prescribing price and amount of assistance. The general procedure, with some variations, has been for the Government to support prices by outright agreement to purchase at a stated price all offerings made to the Board.

The Act became operative in 1946, and support prices have been established for a number of products under varying circumstances and for different periods of time. Assistance for the following crops has been included: potatoes of the 1946 and 1948 crops; apples of the 1947, 1948, and 1949 crops; dried white beans of the 1948 crop; extracted honey of the 1948 crop; butter, dry skimmed milk, and cheddar cheese in 1949; raspberries in SO₂ in 1949. In 1950, price support has been established under varying procedures for eggs, bacon, butter, and cheese.

The need prior to the 1950 crop for substantial price support programs has not been great. Until March 31, 1949, operations under the Act have cost the Government of Canada approximately \$5 million. The potential need for the Act is emphasized by its establishment on a permanent basis.

AGRICULTURAL PRODUCTS ACT, 1947. The Agricultural Products Act gives the Government the power to make long-term export contracts and bulk-purchase agreements with the governments of any country. These powers are subject to renewal annually and are currently in force until March 31, 1951.

¹ See *Foreign Agriculture*, October 1950.

The present food contracts with the United Kingdom were entered into under the provisions of this Act. The contract program acts as a price support mechanism, for in reality it establishes a floor price and what may also be considered a forward price. For some commodities, the operations of the food boards set up under this Act have indeed replaced the necessity of price support under the Price Support Act. The Government by contracting with Britain to purchase specified commodities at stated prices has in truth provided a price support influence, for in almost every case the contracts in conjunction with domestic requirements were sufficient to insure the marketing of the total available supply. In the case of cheese, when the 1949 contract was not sufficient to clear the market, the Government acted under the Prices Support Act and stabilized prices at the contract level.

PROVINCIAL MARKETING LEGISLATION. All of the Provinces except Newfoundland have marketing legislation authorizing the establishment of marketing boards with powers to regulate, within the Province, the movement and the minimum prices of most farm products. The Provinces of Ontario, British Columbia, and Nova Scotia are most active. In general the marketing legislation provides a similar framework for orderly marketing. In Ontario, for example, marketing boards representative of the growers are empowered to negotiate and fix agreements respecting minimum prices, premiums, discounts, and conditions of sale for the products subject to regulations.

Fluid milk control boards have been set up that have the power to inquire into all matters pertaining to the fluid milk industry. Milk control in most Provinces is generally confined to large urban centers, but authority is included for Provincial-wide control.

PRAIRIE FARM REHABILITATION ACT, 1935. The Prairie Farm Rehabilitation Act was designed to institute permanent measures and long-time policies for rehabilitating drought and soil-drifting areas in the Prairie Provinces.

During the 15 years of operation under this Act a great deal has been done. Water development programs have been instituted and expanded, and existing large irrigation projects have been assisted to continue operation. Land utilization programs have been initiated to deal with the problem of rehabilitating abandoned areas and assisting settlers in drought areas. Community pastures have been established and pasture improvement programs fostered.

Two main phases of water development are undertaken under PFRA—the construction of large projects for community use, such as water storage and irrigation works, and the provision of engineering and financial assistance to individual farmers for constructing such small projects as ponds and dams.

The programs under this Act are on a continuing basis, and during 1949 work proceeded along established lines. The most important continuing project is the large irrigation developmental program in Saskatchewan and Alberta. Major irrigation projects to date, constructed under PFRA auspices, supply

water for approximately 300,000 acres. Proposed plans and construction already in progress will raise the total of irrigated land to more than 1,500,000 acres.

MARITIME MARSHLAND REHABILITATION ACT OF 1948. In addition to rehabilitating prairie lands, the Canadian Government has begun to improve Maritime marshlands. In the past, a dike system protecting about 90,000 acres was built, chiefly along the shores of the Bay of Fundy. Designed to provide for tideland utilization by keeping salt water from covering the land, the dikes have fallen into disrepair and much of the area has reverted to salt water flats. In cooperation with the Provincial Governments and under the terms of the Act, the Canadian Government has entered upon a program of rebuilding and repairing existing dikes as well as constructing new ones. During 1949, \$400,000 was appropriated for the work and during 1950 \$1,000,000 is available. The full program is expected to call for the expenditure of several million additional dollars by the Canadian Government supplemented by works carried out by the Provincial Governments concerned.

PRAIRIE FARM ASSISTANCE ACT, 1939. The Prairie Farm Assistance Act is designed to aid farmers who have low yields because of factors beyond their control. It provides for direct money payments by the Dominion Government to these farmers in the spring wheat area. Assistance is payable on one-half the farmer's cultivated acreage up to a maximum of 200 acres. The amount of assistance varies per acre, depending upon yields. Funds for this Act are secured by a levy of 1 percent of the purchase price on all grain marketed in Canada. Deficits in the levy funds may be made up from Treasury funds but are repayable.

In effect, the Act provides a crop insurance program for the most important agricultural region of Canada. In the 11 years of operation, \$116,953,380 have been paid under the program, with \$17,628,000 being paid in 1949. Collections under the levy to date have been \$44,999,688.

Effect of Policy Development on Major Commodities

WHEAT. The 1949 crop was the first one to come under the International Wheat Agreement to which Canada is an export signatory. The Wheat Board continued to be the sole marketing agency. Canada's quota in 1949–50, the last year of the 4-year wheat contract with the United Kingdom, was 140 million bushels, most of which was recorded as sales under the first year of the international agreement. To provide for a bacon contract in 1950, postponement of the shipment of 12.5 million bushels of wheat to the 1950–51 crop year has been arranged. Under this procedure part of the funds originally allocated for wheat purchase during the current year will be used for bacon purchases and the postponed quantities will be shipped during the 1950–51 year.

On April 1, 1949, the Wheat Board's initial price to wheat producers was increased from \$1.55 to \$1.75

per bushel, basis No. 1 Northern in store Fort William-Port Arthur. This increase was retroactive to August 1, 1945, the beginning of the present 5-year pool. It involved the distribution of \$213,445,000 to producers for wheat delivered from the beginning of the pool to March 31, 1949. After this distribution the Board had a deficit of \$5,236,000 as of July 31, 1949, but it is expected this will be overcome in the final year of the pool because of the spread between the \$1.75 domestic price and the British contract price of \$2.00 plus carrying charges. Producers are still entitled to share any surplus that the Board may have at the end of the pool period. In the future the wheat pool will be on a 1-year basis, and the initial payment for the 1950 crop has been announced at \$1.40 per bushel.

With the end of the Canadian-United Kingdom 4-year agreement on July 31, 1950, future British purchases of Canadian wheat will be made within the framework of the International Wheat Agreement. Canada feels assured of a continued substantial share of the British market, and sales from the 1950 crop will be made within the 1950-51 Wheat Agreement price range of \$1.54 and \$1.98 per bushel (Canadian funds). As a result of discussions with the British, Canadian officials have indicated that from 100 million to 120 million bushels of wheat would be sold to the United Kingdom during 1950-51. The Canadian wheat acreage for 1949 was 27.5 million, the second largest in history. It was 28.7 million acres in 1941. Total wheat production in 1949 was 367.4 million bushels. At the annual Dominion-Provincial Agricultural Conference in Ottawa in December 1949, Minister of Agriculture Gardiner proposed a retreat to around 25 million acres but spokesmen from the Prairie Provinces rejected his proposal, and on the basis of early reports it appears that between 26 and 27 million acres were planted to wheat in 1950.

LIVESTOCK AND MEAT. There were no changes in actual Government policy with respect to the livestock industry during 1949. The Provincial and national Governments, through all their appropriate advisory agencies, have continued to urge expansion of livestock production as a means of increasing farm income, establishing a better balanced pattern of farming, furthering soil conservation, and getting a higher return for grain. This may be partly responsible for the fact that the downward trend in both hog and cattle numbers has been arrested.

The principal action affecting meat products has been the continuation of the bacon contract with the United Kingdom. The 1949 contract called for 160 million pounds at 36 cents a pound, f. o. b. seaboard. A large domestic demand for pork reduced the quantities available for export, and it is estimated that only 100 million pounds were actually shipped. The 1950 contract has been negotiated and calls for the shipment of 60 million pounds at 29 cents a pound, f. o. b. seaboard. The Government will pay 32.5 cents a pound and subsidize the loss by use of price support funds.

It had been expected that Government purchases of bacon for contract fulfillment would end in July

1950. It was planned to open the United States border for pork trade and to remove the floor price. Pork consumption has been generally above the contract level, with the result that purchases to meet the contract have lagged and the contract will not be filled until the late fall, if at all. Consequently the Canadian Government has maintained its embargo on pork shipments to the United States and may continue its floor under pork prices until the contract is filled.

During the war the Canadian Government was able to obtain greater production for export of various types of livestock products. In the Prairie Provinces particular attention was given to the increased feeding of hogs. When the war ended, farmers in the area turned back to wheat, a crop that they prefer to raise and are equipped to handle.

DAIRY PRODUCTS. On April 12, 1949, the Canadian Government removed all export controls on all dairy products except butter and cheese. These controls had been considered necessary to conserve domestic supplies and to protect the British contracts. But when prices in the United States for these products declined and the export market fell off in other areas, particularly for concentrated milk products, controls were no longer necessary. As the British cheese contract neared completion, it was announced that, effective June 30, permits for the export of cheese would be permitted freely. This, coupled with devaluation, provided a possibility for cheese export to the United States.

On May 22, the Government authorized the Agricultural Prices Support Board to buy skim milk powder at 9.5 cents for roller and 10.75 cents for spray process, at country points, up to a total of \$1 million. The support program for butter was continued through 1949, with the Government guaranteeing purchases at 58 cents per pound average price at various delivery points. The Government is continuing to support butter prices during the 1950-51 marketing year at the price of 53 cents per pound for first-grade creamery butter at various delivery points.

The 1949 cheese contract was for 50 million pounds at 30 cents a pound, basis first grade, f. o. b. factory. The contract was filled early in the year and the Prices Support Board was authorized to purchase cheese at the contract price effective August 1, 1949. A contract with the United Kingdom for 1950 has been signed for 77 million pounds of cheese, plus or minus 10 percent. The new contract price is 25 cents per pound, f. o. b. seaboard, and the Government is paying to the producers 28 cents, which involves a subsidy of 3 cents a pound. Beginning on May 1, 1950, the Government began requisitioning cheese at the support price and will continue to do so until the contract is fulfilled.

MARGARINE. The Canadian Supreme Court declared, in December 1948, that the legislation that had banned the manufacture and sale of margarine in Canada was *ultra vires* of Parliament, and manufacture of margarine began at once, for the first time in many years. The Canadian Government, however,



Grain elevators in Saskatchewan. These country elevators help farmers store and market their wheat crop.

passed no controlling legislation and the status of margarine was left to the various Provinces. It is still banned, by Provincial legislation, in Quebec and Prince Edward Island, which have about 30 percent of Canada's population. Meantime, manufacture in the rest of Canada has averaged some million pounds a month, and per capita consumption has risen to about 6 pounds a year. Most of the oils used in the manufacture are imported from the United States. The dairy farmers of Canada have appealed the Supreme Court's decision to the Privy Council in London and the appeal is being heard at present, with a decision expected later in the year.

FRUITS AND VEGETABLES. The major Government action affecting fruits and vegetables during 1949 was the relaxation of import controls, which has already been discussed. The immediate result of these relaxations was the increase in Canadian imports of fruits and vegetables from the United States.

The bumper apple crop of 1949 presented marketing difficulties aggravated by the loss of the British apple market. The 1948 crop had been supported by a price support program for Nova Scotia apples. The 1949 crop did not receive direct price support. In its place the Government negotiated a special contract with the United Kingdom for \$3 million worth of apples, mostly from Nova Scotia. The British paid in \$1.5 million and the Canadian Government subsidized the remaining \$1.5 million. In addition British Columbia fruit growers made an outright gift to the United Kingdom of 1 million boxes of apples. The Canadian Government later made a grant of \$2 million to the British Columbia Apple Marketing Board and \$500,000 to the Nova Scotia Apple Marketing Board, for distribution to producers. This action was taken to compensate for the loss of export markets and to ease the plight of the producers.

POTATOES. Through agreement with the United States the Canadian Government acted to suspend shipment of Maritime table potatoes across the border effective December 1, 1948, and ending June 20, 1949. In conjunction with this action, export controls were instituted on certified seed potatoes and a price support program was initiated and potatoes were purchased by the Support Board at \$1.15 per hundred

pounds for No. 1 grade held on farms. Less than 3 percent of the 1948 potato crop was purchased under this program. Toward the end of the purchase period, prices steadied in the market and some potatoes were resold at the purchase price.

Canadian potatoes produced in 1949 were under no restrictions and in response to supported prices in the United States, shipments across the border have been substantial and will probably reach 10 million bushels by the end of the crop year, of which about 60 percent will be certified seed potatoes and the remainder table stock. This is an excellent illustration of the close relationship between the United States economic situation and Canadian agriculture. The Canadian potato producer accidentally derives indirect support from the United States price support operations.

POULTRY AND EGGS. During most of 1949 the poultry industry was stabilized through the influence of the United Kingdom contract for 46 million dozen shell equivalent. The series of occurrences following the cessation in December of egg purchases for contract fulfillment have already been summarized.

Government action late in January 1950 provided a storage program that has succeeded in stabilizing the market with a floor price of 38 cents per dozen, basis Grade A Large. Increased domestic consumption of low-priced eggs and the storage program have removed the threat of a serious glut on the Canadian market. The absence of a British contract for 1950 is expected to lead to reduced production, and adaptation to domestic market needs, and fewer eggs for export. Total exports will decline substantially. Increased exports to the United States, which occurred early in the year, have since declined.

VEGETABLE OILSEEDS. The only significant policy development affecting oilseeds was the change in marketing policy on flaxseed. From 1942-43 to 1947-48, the Canadian Wheat Board was the sole agency for the purchase of flaxseed from producers. During these years the Board purchased flaxseed at a fixed price, with the Government of Canada taking profits and losses.

The Board was not required to purchase all flaxseed directly from producers during 1948-49. The Board merely provided floor prices for flaxseed (\$4.00 per bushel No. 1 basis Fort William Port Arthur) and

permitted private individuals to purchase from producers on the basis of market price.

For 1949-50 crop, the Government decided that it was not prepared to support prices and encourage production, but that it would review the position at a later date. Large stocks and lack of price assurance contributed to the very small output in 1949—2,262,000 bushels compared with 17,683,000 bushels in 1948. The Wheat Board has conducted a voluntary pooling operation on the basis of an initial payment of \$2.50 per bushel. The small crop has eased the flaxseed situation to the extent that the fear of a continued glut on the market has slackened.

Canadian Policy and the United States

In considering Canadian agricultural policy in relation to the United States, the competitive similarity of the crops produced on both sides of the border should be remembered. Although some major United States crops, such as cotton and corn, are not produced on a large scale in Canada, if at all, every major Canadian agricultural product is competitive with United States agriculture, both within the North American market and in overseas export trade. In addition, because of the close interdependence of the economies of the two countries, farm programs initiated in the United States tend to affect the Canadian economy and vice versa.

Canadian potatoes, apples, cattle, eggs, poultry, coarse grains, and other products move to the United States market in substantial quantities. They compete for the consumer's dollar and in some cases derive indirect support from United States support programs. In return, United States fruit, vegetables, fibers, and vegetable oils enter Canada and often complement related Canadian products and compete for the consumer's dollar.

In the international sphere, Canadian wheat, pork, apples, potatoes, and dairy products compete with United States production for a share of the world market. Canadian agricultural prosperity depends in great measure on the ability to export large proportions of the total output of certain commodities. This is particularly true of wheat, which Canada produces in large quantities and exports more than 60 percent of production. Under the International Wheat Agreement, Canada received a share of the world market, and constant cooperation between the two countries is necessary for adequate implementation of the terms of the Agreement.

In viewing United States-Canadian agricultural relations no single product should be examined in a watertight compartment. The over-all aspects of

trade and general economic cooperation frequently call for compromise along some lines in the interest of general agreement and mutual prosperity. Canada and the United States are basically one economy from the viewpoint of resource utilization. This close relationship has always been safeguarded by the ready cooperation of the two countries in discussing and settling mutual problems.

INTERNATIONAL

Agricultural News

FAO Expands Technical Aid

The Food and Agriculture Organization of the United Nations has announced the expansion of its program for technical assistance to underdeveloped areas of the world, with Burma and Guatemala as the first two countries to sign technical assistance agreements. In Burma, FAO will provide an expert to work with Burmese forest technicians to improve the country's forest industry. In Guatemala, FAO experts will work with local officials to improve the conservation of forests, soil, and water. The expansion of FAO's technical assistance work is made possible by the UN Technical Assistance Fund, to which UN member countries are contributing. The fund is an outgrowth of President Truman's Point IV declaration in his inaugural address.

Fourth Inter-American Agricultural Conference

The Fourth Inter-American Conference on Agriculture will be held in Montevideo, Uruguay, from December 1 to 10, with participation by the various American Republics. The program will include a review of food and agricultural situations and programs of participating nations, as well as consideration of opportunities for agricultural improvement.

International Conferences

Following are some international conferences of agricultural significance that are scheduled for 1950 and 1951. In some cases, definite information regarding the place of meeting and the date is not available, but revisions will be published as plans for the conferences are completed.

<i>Organization</i>	<i>Place</i>	<i>Date</i>
Agriculture, Inter-American Conference on (4th).....	Montevideo, Uruguay.....	December 1.
Brucellosis, Pan American Congress on (3rd).....	Washington, D. C.....	November 6-10.
Caribbean Commission (11th).....	Curacao, NWI.....	November 24.
Economic Cooperation, Special Conference on Inter-American.	Buenos Aires.....	Undetermined.
FAO Conference, Special Business Session.....	Washington, D. C.....	November 3-11.
FAO Council (11th).....	Washington, D. C.....	November 13-14.
FAO Latin American Pre-Conference Regional Meeting (to be held in conjunction with 4th Inter-American Conference on Agriculture).	Montevideo, Uruguay.....	December 1.
Far East International Exposition.....	Bangkok, Thailand.....	December 5.
Fisheries, International Commission of the Northwest Atlantic (1st).	Undetermined.....	Late 1950.
GATT: Contracting Parties to the (5th).....	Torquay, England.....	November 2
L. A. Forestry and Forest Products Commission of FAO (3d)...	Santiago, Chile.....	December.
Nutrition Institute of Central America and Panama (1st).....	San José, Costa Rica.....	November.
Regional Fisheries Council for the Mediterranean, Meeting for the Establishment of.	Rome.....	Undetermined.
Scientific Congress, American (9th).....	Havana.....	Late 1950.
UN ECOSOC Economic Commission for Latin America (4th)...	Undetermined.....	November.
West Indian Conference (4th).....	Curacao, NWI.....	November 27.

1951

Cotton Advisory Committee, International (10th).....	Lahore, Pakistan.....	February.
Cultural Council (1st).....	Mexico City.....	Latter half.
FAO Conference (6th).....	Rome (tentative).....	Undetermined.
Home Economics, Technical Meeting on (in conjunction with the Caribbean Commission).	Caribbean area.....	March 12-17.
Poultry Congress, World's (9th).....	Paris.....	July or August.
Rubber Study Group (8th).....	Rome.....	Undetermined.
Technical Meeting on Cooperatives (in conjunction with the Caribbean Commission).	Caribbean area.....	January 22-27 (tentative).
Wood Chemistry, Technical Committee on (5th).....	Undetermined.....	February (tentative).

FAO Conference Meets In Special Session

A special business session of the Conference of the Food and Agriculture Organization will be held in Washington, November 3 to 11. It is felt that there are a number of pressing financial matters that should be decided by the Conference prior to the move of FAO to Rome.

Key items to be taken up are such questions as financing the move, problems connected with technical assistance, location of regional offices, and certain constitutional questions. The Conference is also expected to give some consideration to the world food situation and to the work of the Committee on Commodity Problems.

FAO's Council will meet prior to the Conference, on October 25, to make plans for the Conference. The Council is also expected to meet very briefly after the Conference to appoint committees or to take such other action as may be necessary to carry out the decisions of the Conference.



Review of the Cooperative Movement in India, 1946-1948, a publication of the Reserve Bank of India, Agricultural Credit Department, 145 pp. Bombay, 1950.

Here is a comprehensive report on the cooperative movement in India during the 2 years following World War II.

About half of the discussion concerns rural and urban credit societies; the other chapters tell about cooperative education and training, legislation, and the effect that the partition of India has had on the cooperative movement.

Although the book is principally an account of the progress of cooperatives during 1946-48, it gives a great deal of interesting background information on the movement since it was organized in India in 1904.

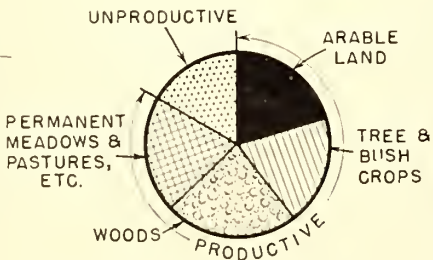
ITALY

LAND USE 1946-47

TOTAL AREA - 30,104,017 HECTARES
 IMPROVED LAND - 27,758,835 HECTARES
 UNIMPROVED LAND - 2,345,192 HECTARES
 (ONE HECTARE EQUALS 2.471 ACRES)

SARDINIA
(SARDEGNA)

2,409



TRENTINO-
ALTO ADIGE

1,360

FRUILLI-
VENEZIA
GIULIA

763

VALLE D'
AOSTA

326

LOMBARDIA

2,380

VENETO

1,838

LIGURIA

540

PIEMONTE

2,542

EMILIA-
ROMAGNA

2,212

TOSCANA

2,299

UMBRIA

847

MARCHE

970

LAZIO

1,718

ABRUZZO E
MOLISE

1,524

PUGLIA

1,935

CAMPANIA

1,359

BASILICATA

999

CALABRIA

1,509

SICILY
(SICILIA)

2,571

